

serves to combat the efforts of sceptics who seek to discredit the whole subject.

In essence the book is an endeavour to turn UFOs into IFOs, (identified flying objects). It is plainly more correct to regard the former precisely as 'unidentified', rather than to make the all too popular assumption that they came from other planets.

The author gives no quarter to the adherents of the belief in visitations by extraterrestrial beings and is perhaps rather harsh in describing them as 'purveyors of absurd and sensational nonsense'. It is a book which could be read with advantage by any really serious investigator and if it demonstrates the wisdom of reserving one's opinion of any reported experience until it has been properly investigated by experienced research workers, it will serve a useful purpose.

There is a good index at the end and bibliographical notes are appended to each chapter.

JOHN CUTTEN

PARANORMAL BORDERLANDS OF SCIENCE. Edited by Kendrick Frazier. Prometheus Books. 469 pp. £6.50.

The book is a collection of reprinted articles which have appeared since 1977 in the *Skeptical Enquirer*, the organ of the American-founded Committee for the Scientific Investigation of Claims of the Paranormal. As such it reflects the somewhat mixed-bag effect of contributions to a journal and, for the general reader, has not the clarity and coherence which would have resulted from an invitation to a group of authors to contribute critical reviews under the 11 subject headings covered. These are: psi phenomena and belief, tricks of the psychic trade, Geller-type phenomena, stories of life and death, rhythm of life, astrology, land and sea (includes dowsing), extraterrestrial visitors, cult archaeology and biology, planetary pinballs, UFOs.

A number of the articles are frank attacks on current beliefs in the paranormal and attempt to demolish the validity of various claims by drawing attention to the unsatisfactory experimental conditions. Too often a strain of hostility or sarcasm overlays what should be objective reporting.

Some of the targets are what one might call sitting ducks, e.g., UFOs, Van Däniken, and Velikovsky. Astrology is not quite so easily disposed of, and controversy still rages over the claims of Michel Gauquelin. So it is interesting to find four painstaking empirical tests of astrological claims. In the first, John D. McGervey tests the effect of the zodiac or 'sun sign', which all books on astrology agree has an influence on the horoscope and by implication on the choice of career. McGervey tabulated the birthdates of 16,634 persons listed in *American Men of Science* and of 6,475 persons listed in *Who's Who in American Politics*. The results were 'just about what one would expect for a random normal distribution'. Ralph W. Bastedo lives in San Francisco, where the telephone directory lists 34 professional astrologers and astrological schools, and where employers, he claims, discriminate among job applicants by birthdate—'If you're Scorpio or Taurus—you won't get the job'. Bastedo used a survey of 1,000 adults conducted in 1971 for other purposes by the University of California. The data made it possible to correlate the subjects' zodiac sign with their leadership ability,

political leaning, subjective intelligence, intelligence quotient, and belief in astrology. In all five cases the null hypothesis was sustained.

An analysis of 12,000 live and dead births by Abell and Greenspan revealed no correlation between the numbers of births and full moon or any other phase of the moon. The fourth paper on astrology counters the claim of Gauquelin that Mars appears in a specific part of the sky at the time of birth of sports champions more often than can be accounted for by chance.

The book also contains three interesting papers on 'cold reading'—a procedure which a fortune teller or medium may use to persuade a client whom he has not met before that he knows all about the client's personality and problems. Such psychological tricks of the trade are undoubtedly used by mediums, mainly unconsciously, and it would be a good thing if the beginner as a 'sitter' were better informed on this subject. The articles from the journal are reproduced in the book mainly by photo-facsimile and the editing has not been impeccable. For example, on page 187 we read an acknowledgement to a publisher for illustrations which in fact have been edited out. The absence of an index is to be regretted.

DENYS PARSONS

THE PSYCHOLOGY OF THE PSYCHIC. By David Marks and Richard Kammann. Prometheus Books, Buffalo, New York, 1980. 323 pp.

Many people believe the psychic to be a gifted and rather special individual and most students of psychical research would be extremely interested to read an account from the standpoint of modern psychology of the psychic's remarkable personality and his astonishing supposed abilities. In spite of their title, and I think contrary to their original intentions, David Marks and Richard Kammann have not produced such a book. They try to show, instead, that because according to them psi does not exist, the psychic does not in fact possess psi abilities, and that his most outstanding characteristic is an amazing talent for deception.

Marks and Kammann, academic psychologists, were compelled to take psychical research seriously by their students at the University of Otago about seven years ago, when Kreskin—an 'internationally known mentalist'—was appearing regularly on New Zealand television and had particularly impressed the psychology undergraduates. Marks and Kammann took up the challenge to explain his 'psychic miracles'. They insist that they were open-minded at first, and were duly impressed at the live show they attended. But a careful follow-up, which included interviewing those involved in the 'mind-reading' and carrying out simple control experiments, soon convinced them that Kreskin is merely a skilled conjuror. All the tricks are fully described and explained in two entertaining and instructive chapters.

Kreskin was a warm-up for Uri Geller, with whom Marks and Kammann were able to arrange sessions during his visit to New Zealand in the spring of 1975. Nothing that they saw, though, persuaded them that Geller had paranormal powers. Their conclusion was that, once again, they were dealing with a conjuror. In addition to the close observation of Geller in action, their procedure also included, as before with Kreskin, a few well-conducted control experiments. This 'method of the delayed control group' was an important feature of their investigation. They argue, correctly in my view, as follows: